

State of New Hampshire DE. ALIMENT OF ENVIRONMENTAL SERVICES

6 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095 (603) 271-3503 FAX (603) 271-2867



NH Audubon Society Field Manager P.O. Box 528B Concord, NH 03302-0516 July 11, 2000 Letter of Deficiency DAM #062.12

RE: Smith Brook Dam, Deering

Dear Sir/Madame:

The Department of Environmental Services, Dam Bureau (DES) consistently strives to enhance the safety of dams in New Hampshire through its dam safety program. One of the many instruments that plays a part in reaching this goal is our inspection program. DES is forwarding this correspondence to you to advise you that in accordance with RSA 482:12 and Env-Wr 502.02, an inspection of the subject dam was conducted on April 20, 2000. During this visual inspection and/or file review, the following deficiencies were observed:

- 1. There was an area of exposed earth on the right side of the wooden bridge that crosses over the concrete spillway. It was evident that this exposed earth was due to foot traffic across the bridge;
- 2. There was a small area of exposed earth at the left downstream corner of the left spillway abutment; and
- 3. It was indicated to the undersigned that the flashboard pins were continually being replaced due to frequent failure of the pins. At the time of this inspection hardier pins had been placed, at the flashboard section, to eliminate the frequency of repair;
- 4. There was no operation and maintenance plan on file with the DES.

DES believes that the above deficiencies can be corrected by performing the following items by the indicated schedule:

October 1, 2000:

- 1. The pathway to the existing wooden bridge should be covered with an erosion resistant material that will stand up to the heavy foot traffic at this location;
- 2. Repair the small area of exposed earth at the left downstream corner of the left spillway abutment with a proper erosion resistant material;
- 3. The flashboards are designed to fail so that the dam may safely pass the 100-year 24-hour design storm at its peak with at least 1 foot of freeboard. The hydraulic analysis indicated that the dam would not have sufficient freeboard in the event that the flashboards do not fail during the peak design storm, as per our rules. We recommend that the proper pins be placed so as to allow failure of the flashboards as designed. As we have determined, a ¾ inch standard steel pipe should be sufficient to allow for the failure of the flashboards as necessary. This number should be verified with the original specifications or design plans; and

TDD Access: Relay NH 1-800-735-2964

Letter of Deficiency Dam #062.12 July 11, 2000 Pg. 2

> 4. At the time of this report the operation and maintenance plan had been submitted and approved by this office. We appreciate the owner's prompt response in supplying the O&M.

DES is requesting that you complete and submit the attached "Intent to Complete Repairs" form, within 30 days of receipt of this letter, that will provide for correction of the identified deficiencies by the date(s) indicated above. If you believe changes to the items of work or dates are necessary, please make the changes directly on the form and provide a brief explanation. We have enclosed a self addressed stamped envelope for you to return this form.

Our intent in sending you this correspondence is to make you aware of items that DES believes warrant your attention to insure the continued safe operation of your dam. It is our hope that, through the submittal of the attached form and a commitment to keeping a well-maintained dam, you will voluntarily comply with the requested items of work. If we do not receive the intent form or a similarly adequate written reply, we will assume that you are in agreement with our findings and recommendations and DES will carry out follow-up inspections accordingly.

If you have any questions or comments regarding this Letter of Deficiency or would like to be present at future inspections, please contact me at 271-3406, or write to the Water Division at the address listed on the top of the previous page.

Sincerely,

Dale F. Guinn Dam Safety Engineer

Attachments: DB1, DB8, DB9, DB13, DB15, Definition of a Dam, Definition of a Dam (Culvert Rule)

cc: Gretchen Rule Town of Deering

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